

Fish Consumption Advisories

SHOULD WE EAT THE FISH IN ARIZONA?

Fish consumption advisories for mercury and for pesticides are currently in effect in several areas of Arizona. These pollutants concentrate to high levels in fish by accumulating in fatty tissues or binding to muscle tissue, a process called bioaccumulation. This bioaccumulation may pose a threat to human health if these organisms are eaten on a regular basis in excess of fish consumption advisory guidelines.

Fish consumption advisories have been issued in Arizona to inform the public about possible adverse health effects and contain recommendations for how many fish meals can safely be consumed. Advisories may be directed at a particular subset of the population, because some people are at greater risk (e.g., sport or subsistence fishers, pregnant women and children). Information on these advisories is shown in the table on the right.

NATIONAL MERCURY FISH CONSUMPTION ADVISORY

In January 2001, the US Environmental Protection Agency issued an advisory for the entire nation concerning risks associated with mercury in freshwater fish for women who are pregnant or may become pregnant, nursing mothers, and young children. EPA is recommending that these most vulnerable groups limit fish consumption to one meal per week - six ounces of cooked fish (eight ounces of uncooked fish) for an adult, and two ounces of cooked fish (three ounces uncooked) for a young child. US Food and Drug Administration has a companion advisory concerning the hazard posed by some fish purchased commercially (www.cfsan.fda.gov).

IS IT SAFE TO SWIM OR WADE IN LAKES WITH MERCURY OR PESTICIDE ADVISORIES?

Yes. Once mercury or pesticides enter an aquatic ecosystem such as a lake or stream, they accumulate quickly in the muscle tissue of living organisms such as aquatic insects and fish where they generally remain, moving from organism to organism. In aquatic ecosystems the vast majority of these pollutants is most likely contained in the organisms inhabiting that system, leaving only very small amounts in the water.



Mercury sampling on Alamo Lake, in the Bill Williams watershed.

Waterbody Name	Pollutant and Sources	Advisory and Date
Painted Rocks Reservoir Painted Rock Borrow Pit Lake, and portions of the Gila, Salt, and Hassayampa rivers	Historic use of pesticides.	Since 1991 - Do not consume fish and other aquatic organisms.
Dysart Drain (canal drains to Agua Fria River in the Phoenix metro area)	Historic use of pesticides.	Since 1995 - Do not consume fish and other aquatic organisms.
Arivaca Lake	Mercury contamination. Potential sources include mine tailings, atmospheric deposition, and naturally mineralized soils.	Since 1996 - Do not consume fish and other aquatic organisms.
Peña Blanca Lake	Mercury contamination caused by historic mining and natural conditions at the lake.	Since 1995 - Do not consume fish and other aquatic organisms.
Upper and Lower Lake Mary	Mercury contamination. Sources to be investigated.	Since May 2002 - Do not consume walleye fish and limit consumption of other fish to one 8-ounce fillet per month.
Parker Canyon Lake	Mercury contamination. Sources to be investigated.	Since October 2002 - Women of childbearing age and children under age of 16: No consumption Women not in above categories: Consult health care provider Adult men (16 yrs. or older): Three 8 ounce (uncooked weight) fish meals per month

IS IT SAFE TO FISH IN THESE LAKES?

Yes. Recreational fishing should not be affected by these advisories. It is safe for people of any age to handle fish in catch and release situations and, as stated previously, contact with the water should not pose a risk.

WHAT IS ADEQ DOING ABOUT THE PROBLEMS?

Use of the pesticides responsible for the advisories has been banned or cancelled in the US. While the pesticides are still present today in harmful concentrations, there has been a reduction in levels since application ended. ADEQ continues to monitor fish tissue in these areas. The consumption advisories will remain in effect until the pesticides are gone from the aquatic ecosystem, or are no longer present at unhealthy levels.

Reduction of mercury contamination will require participation from agencies including Game & Fish, Health Services, Mines & Minerals, EPA, USGS, state and federal land managers, as well as public and private partners. Currently, ADEQ is conducting data collection, analysis and research to determine mercury sources in Arizona and develop feasible mitigation measures. Long-term strategies at the state and federal levels include reducing mercury in consumer products, encouraging development of new technologies, and facilitating proper disposal of products containing mercury.

ADDITIONAL PROGRAM INFORMATION

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Waterbody Name	Pollutant & Sources	Advisory and Date
Lyman Lake	Mercury contamination. Sources to be investigated.	Since October 2002 - Children under the age of 6: No consumption Women not in above categories: Consult health care provider Adult men (16 yrs. or older): Five 8 ounce (uncooked weight) fish meals per month
Soldier Lake	Mercury contamination. Sources to be investigated.	Since July 2003 - Do not consume fish.
Soldier Annex Lake	Mercury contamination. Sources to be investigated.	Since July 2003 - Do not consume fish.
Long Lake	Mercury contamination. Sources to be investigated.	Since July 2003 - Do not consume fish.
Alamo Lake	Mercury contamination. Sources to be investigated.	Since February 2004 - Children under the age of 6: No consumption of largemouth bass or black crappie Women of childbearing age: One 8 ounce (uncooked weight) fish meal per month of largemouth bass or black crappie Women not of childbearing age: Five 8 ounce (uncooked weight) fish meals per month of largemouth bass or black crappie Adult men (16 yrs. or older): Six 8 ounce (uncooked weight) fish meals per month of largemouth bass or black crappie
Coors Lake	Mercury contamination. Sources to be investigated.	Since February 2004 -- Children under the age of 6: No consumption of largemouth bass Women of childbearing age: One 8 ounce (uncooked weight) fish meal per month of largemouth bass Women not of childbearing age: Five 8 ounce (uncooked weight) fish meals per month of largemouth bass Adult men (16 yrs. or older): Six 8 ounce (uncooked weight) fish meals per month of largemouth bass